MALABAR

Maxwell Underground Coal Mine Project

Environmental Monitoring Data

August 2022

1 INTRODUCTION

The Maxwell Underground Coal Mine Project is owned by Maxwell Ventures (Management) Pty Limited. This report has been compiled to present environmental monitoring data for the Maxwell Underground Coal Mine Project Environment Protection Licence 1323. This report complies with Section 66(6) of the *Protection of the Environment Operations Act 1997*.

A summary of the Licence details is provided in **Table 1**.

Table 1. A summary of licence and report details

Environment Protection Licence Number	1323
Licensee Details	Maxwell Ventures (Management) Pty Limited Private Mail Bag 9 Muswellbrook NSW 2333
Premises	Maxwell Underground Coal Mine Project Thomas Mitchell Drive Muswellbrook NSW 2333
Link to the EPA Register	http://app.epa.nsw.gov.au/prpoeoapp/
Reporting Month	August 2022
Date of Publication	27 September 2022
Version	1
Correction Log	-

2 MONITORING RESULTS

Air quality monitoring results are provided in **Table 2**.

Blast monitoring results are provided in **Table 3**

Noise monitoring results are provided in **Table 4**.

Maps of monitoring locations are provided in **Appendix 1**.

Table 2. Air quality monitoring results for August 2022

EPA identification no.	Sampling point	Sampling period start date	Sampling period finished date	Unit of measure	Averaging period	Monitoring frequency	Minimum value	Mean value	Median value	Maximum value
8	ES-01	01/08/2022	31/08/2022	micrograms per cubic metre	5 minutes	Continuous	0	33	6	5650
9	ES-02	01/08/2022	31/08/2022	micrograms per cubic metre	5 minutes	Continuous	0	7	6	52
10	ES-03	01/08/2022	31/08/2022	micrograms per cubic metre	5 minutes	Continuous	0	3549	3879	4173
11	ES-04	01/08/2022	31/08/2022	micrograms per cubic metre	5 minutes	Continuous	0	9	9	37

As stated in previous reports, a large range of values from the E-Sampler at site ES-03 have been recorded and are deemed spurious. Monthly scheduled calibrations note a 'Solenoid error' on the operating screen; all other checks passed (leak check, temperature, pressure, flow, battery etc). The same scheduled calibrations for ES-02 recorded a 'Detector error' however there is less effect on the data. Due to the ongoing issues with the E-Samplers and a lack of alternative hire equipment, Malabar conducted a review of alternatives, obtained a quotation for a replacement and in June 2022 submitted an application to the EPA to vary the EPL to permit an alternative to the E-Sampler. Malabar has continued to closely monitor the situation with these equipment and received an EPL amendment to enable the replacement of the faulty equipment. In September 2022 Malabar issued a purchase order to a supplier for the provision of two new PALAS AQ Smart devices; the lead time is estimated as being 6–8 weeks plus delivery time. An update will be provided in subsequent reports.

Table 3. Blast monitoring results for August 2022

EPA identification no.	Sampling point	Time and Date of blast	Date final report obtained	Unit of measure	Averaging period	Measured value	100 percentile limit	95 percentile limit	Exceedance (yes/no)	Observations
13	Monitoring location BM1	No blasting occurred during August 2022								
14	Monitoring location BM2									
15	Monitoring location BM3									

Table 4. Noise monitoring results for 22 August 2022

EPA identification no.	Sampling point	Day ($L_{A\ eq\ (15\ minute)}$)		Evening ($L_{A\ eq\ (15\ minute)}$)		Night ($L_{A\ eq\ (15\ minute)}$)		Night ($L_{A1\ (1\ minute)}$)		Exceedance (yes/no)	Observations
		Criteria	Noise Level	Criteria	Noise Level	Criteria	Noise Level	Criteria	Noise Level		
16	NM1	45	69	41	67	41	59	52	82	No	Project inaudible
17	NM2	44	54	40	42	40	40	52	62	No	Project inaudible
18	NM3	40	53	35	55	35	46	52	66	No	Project inaudible
-	NM4	40	71	35	67	35	57	52	81	No	Project inaudible
Additional Information											
Date of Final Report	15 September 2022										
Weather Conditions	Wind speed 1.5–4.6 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, a freight train, birds, frogs, and insects. The Maxwell Underground Coal Mine Project was inaudible at all locations and times.										

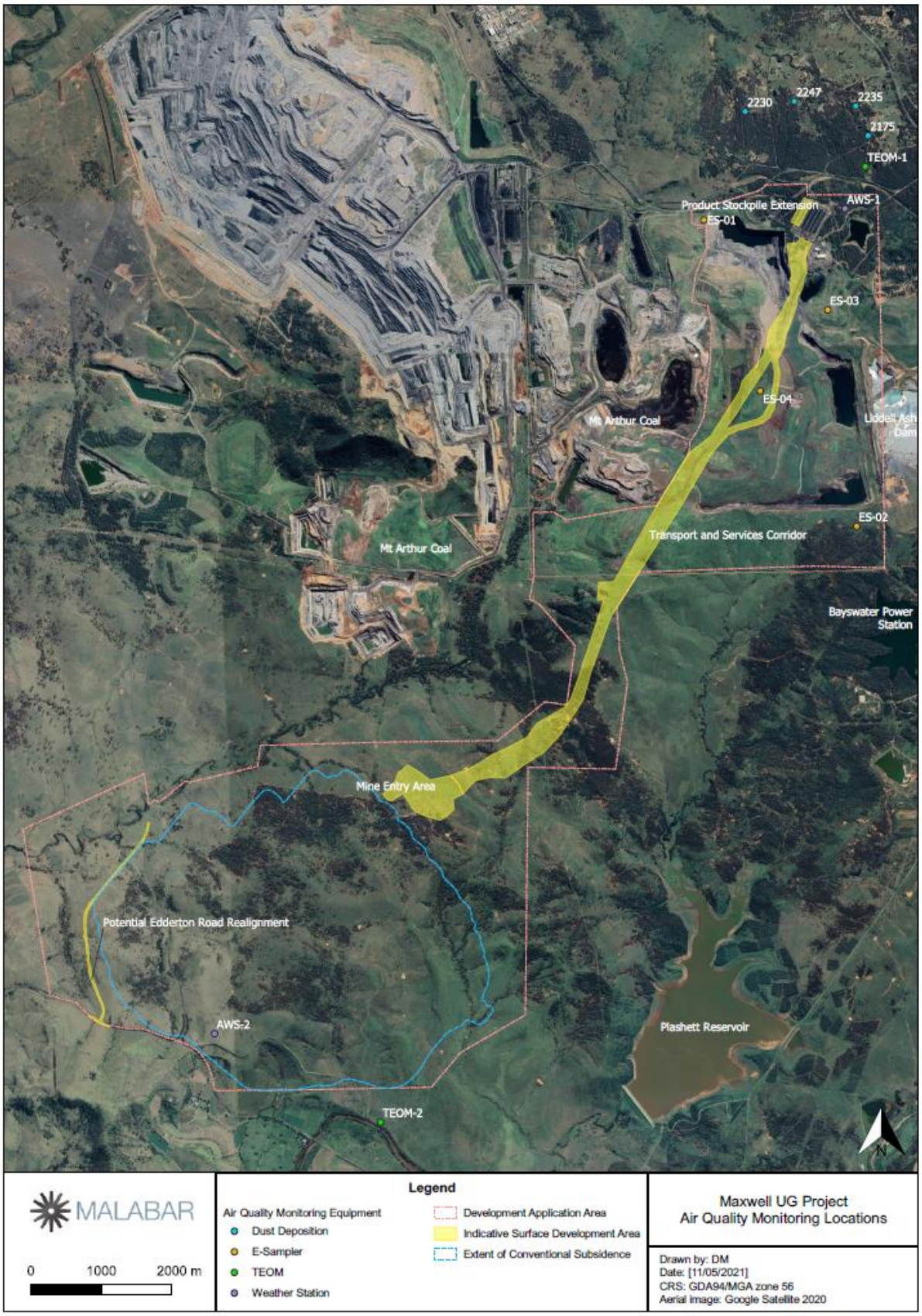
Table 5. Noise monitoring results for 23&30 August 2022

EPA identification no.	Sampling point	Day ($L_{A\ eq\ (15\ minute)}$)		Evening ($L_{A\ eq\ (15\ minute)}$)		Night ($L_{A\ eq\ (15\ minute)}$)		Night ($L_{A1\ (1\ minute)}$)		Exceedance (yes/no)	Observations
		Criteria	Noise Level	Criteria	Noise Level	Criteria	Noise Level	Criteria	Noise Level		
16	NM1	45	72	41	68	41	68	52	89	No	Project inaudible
17	NM2	44	55	40	47	40	41	52	63	No	Project inaudible
18	NM3	40	53	35	52	35	64	52	82	No	Project inaudible
-	NM4	40	71	35	68	35	76	52	91	No	Project inaudible
Additional Information											
Date of Final Report	15 September 2022										
Weather Conditions	Wind speed 1.1–4.9 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, frogs, insects, and a dog. The Maxwell Underground Coal Mine Project was inaudible at all locations and times. Results for NM2 in the evening period and all night-time results in this table are from supplementary monitoring conducted on 30th August 2022 due to rain on the 23rd August.										

Table 6. Noise monitoring results for 24 August 2022

EPA identification no.	Sampling point	Day ($L_{A\ eq\ (15\ minute)}$)		Evening ($L_{A\ eq\ (15\ minute)}$)		Night ($L_{A\ eq\ (15\ minute)}$)		Night ($L_{A1\ (1\ minute)}$)		Exceedance (yes/no)	Observations
		Criteria	Noise Level	Criteria	Noise Level	Criteria	Noise Level	Criteria	Noise Level		
16	NM1	45	69	41	68	41	64	52	88	No	Project inaudible
17	NM2	44	42	40	38	40	36	52	55	No	Project inaudible
18	NM3	40	51	35	52	35	51	52	72	No	Project inaudible
-	NM4	40	70	35	70	35	65	52	90	No	Project inaudible
Additional Information											
Date of Final Report	15 September 2022										
Weather Conditions	Wind speed 2.1–3.3 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, and frogs. The Maxwell Underground Coal Mine Project was inaudible at all locations and times.										

APPENDIX 1 – MAPS OF MONITORING LOCATIONS


2230
2247
2235
2175
TEOM-1
Product Stockpile Extension
ES-01
AWS-1
ES-03
ES-04
Mt Arthur Coal
Liddell Ash Dam
ES-02
Transport and Services Corridor
Mt Arthur Coal
Bayswater Power Station
Mine Entry Area
Potential Edderton Road Realignment
AWS-2
Plashett Reservoir
TEOM-2
N
MALABAR
0 1000 2000 m
Legend
Air Quality Monitoring Equipment
Dust Deposition
E-Sampler
TEOM
Weather Station
Development Application Area
Indicative Surface Development Area
Extent of Conventional Subsidence
Maxwell UG Project
Air Quality Monitoring Locations
Drawn by: DM
Date: [11/05/2021]
CRS: GDA94/MGA zone 56
Aerial image: Google Satellite 2020

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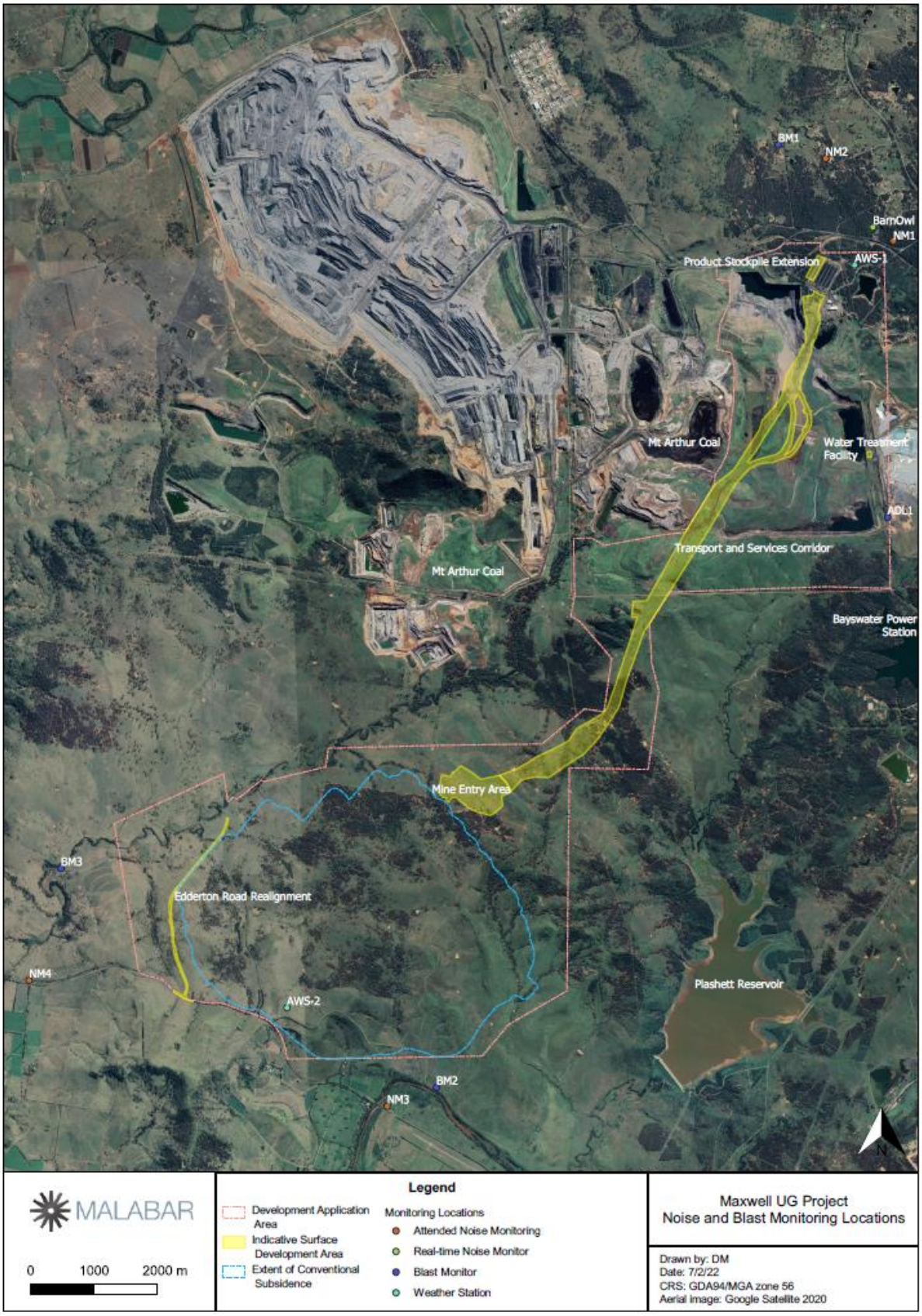
BM1
NM2
BarnOwl
NM1
Product Stockpile Extension
AWS-1
Mt Arthur Coal
Water Treatment Facility
ADL1
Transport and Services Corridor
Mt Arthur Coal
Bayswater Power Station
Mine Entry Area
BM3
Edderton Road Realignment
NM4
AWS-2
Plashett Reservoir
BM2
NM3
N
MALABAR
0 1000 2000 m
Legend
Development Application Area
Indicative Surface Development Area
Extent of Conventional Subsidence
Monitoring Locations
Attended Noise Monitoring
Real-time Noise Monitor
Blast Monitor
Weather Station
Maxwell UG Project
Noise and Blast Monitoring Locations
Drawn by: DM
Date: 7/2/22
CRS: GDA94/MGA zone 56
Aerial image: Google Satellite 2020

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